We Claim;

1.   A method of achieving context synchronization in a system configured with control redundancy comprising:
providing means for a first control element to process a new context and to distribute the new context to a second control element; and
providing means at said second control element to maintain synchronization of said new context with said first control element.

2.   The method as defined in claim 1 wherein processing of a new context is initiated by an external stimulus message.

3.   The method as defined in claim 2 wherein said first control element is an active control complex and said second control element is an inactive control complex.

4.   The method as defined in claim 3 wherein said active control complex calculates a new context and transfers the new context to said inactive control complex.

5.   The method as defined in claim 4 wherein said active control complex transitions into said new context after successfully completing the transfer of said new context to said inactive control complex.

6.   The method as defined in claim 5 wherein upon transition of said inactive complex to said new context said active control complex will acknowledge receipt of said external stimulus.

7. The method as defined in claim 6 wherein external stimulus messages will continue to be sent periodically until an acknowledgement has been received.

8. The method as defined in claim 7 wherein said inactive control context assumes control upon a failure of said active control context.

9. A system for achieving context synchronization in a system configured with control redundancy comprising:

means for a first control element to process a new context and to distribute the new context to a second control element; and

means at said second control element to maintain synchronization of said new context with said first control element.

10. An Atomic Redundancy Synchronization Transaction (ARST) device for guaranteeing context synchronization between two identical processes on an active control complex and an inactive control complex comprising:

means in said active control complex to receive an external stimulus message and to calculate a new context in response thereto;

means in said active control complex to transfer said new context to said inactive control context and to transition to said new context;

means in said inactive control complex to transition to said new context in synchronization with said new context in said active control complex; and

means in said active control complex to acknowledge receipt of said external stimulus message.

11. The ARST as defined in claim 10 wherein a naming service is used to enable said active control complex and said inactive control complex to be connected regardless of physical location or network configuration.

12.   The ARST as defined in claim 11 wherein said naming service is a storage database of control process names and locations.

13.   The ARST as defined in claim 12 wherein said naming service enables the external stimulus message to be sent to both the active control complex and the inactive control complex.

14.   The ARST as defined in claim 13 wherein said external stimulus message is continually sent periodically until an acknowledgement has been received.

15.   The ARST as defined in claim 14 wherein if said active control context fails to acknowledge said external stimulus message said inactive control context, upon receipt of said message, calculates a new context, transitions to said new process and becomes the active control complex.